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force applying member mounting means to apply a lateral force to the sample in accordance with the expansion and contraction of said force applying means as the temperature of the ambient environment in which said sample holder is present increases and decreases.

26. A sample holder as claimed in claim 25 in which said material is a material which expands as temperature increases and contracts as temperature decreases.

27. A sample holder as claimed in claim 26 in which said material is engaged with said force applying member mounting means to move said force applying member away from said plane as said material expands as temperature increases.

28. A sample holder as claimed in claim 25 in which said material is a material which contracts as temperature increases and expands as temperature decreases.

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29. A sample holder as claimed in claim 28 in which said material is engaged with said force applying member mounting means to move said force applying member away from said plane as said material expands as temperature decreases.

30. A sample holder as claimed in claim 25 in which said force applying member mounting means comprise parallel rods mounted on one of said fixed sample holding members, and said force applying member extends between said rods and is slidably mounted on said rods.

31. A sample holder as claimed in claim 30 in which said force applying means comprise metallic coils around said rods and having one end engaged with said force applying member mounting means and the other end fixed to said holder.

32. A sample holder as claimed in claim 31 in which the other ends of said coils are fixed to said rods.

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